

Low-texture Cold-rolled Electrotechnical Steel SOV/133-58-11-19/25

annealing a small reduction (e.g. by reducing from a thickness of 0.54 mm to 0.50 mm). There are 4 figures, 6 tables and 4 references, 3 of which are Soviet and 1 English.

ASSOCIATIONS: TsNIIChM and Novosibirski¹ metal lurgicheskiy zavod (Novosibirsk Metallurgical Works)

Card 3/3

AUTHORS: Belyakov, A.I., Nefedov, A.A. and SOV/133-58-12-14/19
TITLE: Cold Rolled Electrotechnical Steel 1mm Thick
(Khodnokatanaya elektroukhnicheskaya stal',
tolshchinoj 1.0 mm)

PERIODICAL: Stal', 1958, Nr 12, pp 1128-1129 (USSR)
ABSTRACT: The production of cold rolled steel 1mm thick, containing
3% of silicon was tested under laboratory conditions in
TsNIIChM and under work conditions in the Novosibirsk
Works. The process was based on that of producing
E310-E330 steels with some decrease in the degree of
reduction during the first and second cold rolling. The
main features of the technology are: a) cold rolling of
slabs 150 x 620 x 2600 mm into strip 2.5 x 620 mm;
b) decarburising annealing at 830x800°C; c) pickling in an aqueous
solution of sulphuric acid; d) cold rolling from 2.5
to 1 mm; e) cutting of coils into sheets 1.0x600x1500;
f) covering with talc; g) final annealing of sheets i
vacuo at 850°C. Electromagnetic properties of sheets i

Card 1/2

Cold Rolled Electrotechnical Steel 1mm Thick SOV/133-58-12-14/19

annealed at 850 - 1150°C are shown in the Table. Steel annealed at 850°C is practically isotropic with satisfactory electromagnetic properties. On annealing at higher temperatures anisotropy appears.

There are: 1 figure and 2 tables

ASSOCIATION: Novosibirskiy metallurgicheskiy zavod i TsNIIChM
(Novosibirsk Metallurgical Works and TsNIIChM)

Card 2/2

S.
SIMAKOVA, M.; BELYAKOV, A.; NEFFEDOV, A.

"Cold rolled 1.0 mm. electric steel. Tr. from the Russian."

Hutnik. Praha, Czechoslovakia. Vol. 9, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclassified

BELYAKOV, A.I., inzh.; BORZOVA, P.I., inzh.; MEFEDOV, A.A., inzh.;
SEM'AKOVA, N.S., inzh.

Properties of low. th. cold-rolled steel engineering
steel. Elektrichestv. no.8: 3 Aug '61. (MIRA 14:10)
(Steel)
(Electric engineering--Materials)

SIMAKOVA, M. S.

"The Method of Charting the Soils of the Pre-Caspian Depression From Aerial Photographic Information." Cand Geol-Min Sci, Soil Inst, Acad Sci USSR, 9 Feb 55. (VM, 26 Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

M. L. Siniatkin

31213011) PHASE I BOOK EXPLOITATION 507/2039

Akademija Nauk SSSR. Pochvennyj Institut im. V. V. Dokuchajeva

Pochvennoye "vyschetal' putovedeniye po poljovym issledovaniyam i kartirovaniyu pochv (Soil Surveying: A Manual on Field Surveying and Mapping of Soils) Moscow, Izd-vo AN SSSR, 1959. 346 p. 7,000 copies printed. Errata slip inserted.

Reed. Eds.: I. V. Tyurin, Academician, T. P. Gerasimov, Academician, Yu. N. Ivanova, Professor, and V. A. Kosin, Candidate of Sciences, Ed. of Publishing House: V. Ya. Narov; Tech. Eds.: I. P. Kustatin,

purpose: This book is intended for students and practitioners of soil science and land utilization. It will also be of interest to geographers and cartographers engaged in soil surveying and mapping projects.

content: This work on soil surveying was prepared by a group of scientists of the Department of Soil Geography and Cartography of the Pochvennyj Institut AN SSSR (Soil Institute, AS USSR). The book discusses the methods used in both scientific and practical purposes surveys. The basic aim of all operations is to raise agricultural productivity and introduce wise land utilization. The book includes representative maps and samples of the forms and reports to be used by the soil scientist. No personalities are mentioned. There are no Soviet references.

Ch. 5. The Office Processing of Material Obtained from a Soil Survey (R.A. Bogina and N.B. Rozde) 111

Checking and processing field work information, making up an analytical chart 111

The basic types of soil analyses 113

Compiling and finishing soil maps 120

Preparing the cartographic base 120

Putting up the legend of a soil map 120

Plotting soil boundaries and supplementary symbols 127

The finishing (border details) of soil maps 136

Ch. 6. Using Aerial Photography in Mapping Soil Cover (R.S. 146

Types of aerial photography and the properties of aerial photographs 146

Interpreting the soil cover from aerial photographs 153

Special features of work organization in soil mapping from aerial photographic material 153

The selection of aerophotographic materials for soil surveys of various scales 165

The mapping schedule in soil mapping from aerophotographic materials 166

Bibliography for Part 1 169
Card 5/7

SIMAKOVA, M.S.

Soil mapping on the basis of aerial photogrammetry as carried
out in the forest-steppe, steppe and semiarid zones on the
Soviet Union. Trudy Lab.aeromet. 7:299-301 '59.
(MIRA 13:1)

1. Pochvennyy institut AN SSSR.
(Soils--Maps)
(Photographic interpretation)

SIMAKOVA, M. S. and LIVEROVSKIY, Yu. A.

"Use of Aerial Photographs for Detail Soil Survey".

report submitted for the 7th Congress of International Society of Soil Science
Madison, Wisconsin, 15-23 Aug 60.

VISENTYAKOV, A.V., kand. tekhn. nauk; BAILOV, A.H., kand. tekhn. nauk; MNTALEVA, G.G., inzh.; PLENCHENKO, I.Ye., inzh.; KUD'YGINA, V.S., inzh.; BELYAKOV, A., inzh.; SINAHOVA, N.S., inzh.

Properties of transformer steel made of ingots with closed pipe.
(MIRA 17:10)
Stal' 74 no.9:812-814 S '64.

1. Sibirskiy metallurgicheskiy institut, Kurnetskiy metallurgicheskiy
kombinat i Novosibirskiy metallurgicheskiy zavod.

L 20975-66. EHT(d)/EEC(k)-2 WS-2

ACCESSION NR: AR5017561

UR/0058/65/000/006/H022/H022

11
B

SOURCE: Ref. zh. Fizika, Abs 6Zh156

AUTHORS: Korniyenko, M. G.; Simakova, N. A.

TITLE: Correlation properties of the angular separation in
long distance tropospheric propagation of UHF waves

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te,
vyp. 45, 1964, 211-214

TOPIC TAGS: correlation property, diversity reception, angle
separation, tropospheric propagation

TRANSLATION: The authors consider the character variation of the co-
efficient of mutual correlation (R) of the received signals in the
case of angular diversity, when the directivity pattern exceeds the
angular dimensions of the scattering volume, as a function of the
width α of the directivity pattern of the receiving antennas and of

Card 1/2

L 20975-66

ACCESSION NR: AR5017561

their diversity relative to the arrival angle β . It is shown that the value of R depends on the slope of the intersection of the directivity patterns of the receiving antennas. Results of an experimental investigation of this dependence, obtained on a path 250 km long in the decimeter band, with diversity of the receiving antenna diagrams in the horizontal plane, are presented. Plots are presented of the dependence of R on α and on β , from which it follows that when diversity reception based on the angle of arrival of the radio waves is employed, the diversity of the directivity patterns must be chosen equal to α , and that α must not exceed 2.5° . Yu. D.

SUB CODE: EC

ENCL: 00

Card 2/2 MJS

KOKUSHINA, T.M.; DAAL'-BERG, A.I.; STMAKOVA, N.G.

Modifying immune reactions of the body preliminary administration
of antibiotics. Antibiotiki 5 no.3:49-51 My-Je '60. (MIRA 14:6)

1. Leningradskiy nauchno-issledovatel'skiy institut antibiotikov.
(IMMUNITY) (ANTIBIOTICS)

RAYKHLIN, N.T., SIMAKOVA, R.A.

In the morphology committee of the Academy of Medicine of the
U.S.S.R. Arkh.pat. 18 no.2:139-142 '56 (MIRA 11:10)
(HISTOCHEMISTRY)

SIMAKOVA, R.A.

Detection of ascorbic acid in the cells of rheumatic granuloma.
Nauch. inform. Otd. nauch. med. inform. AMN SSSR no.1:10 '61.
(MIRA 16:11)
1. Institut normal'noy i patologicheskoy fiziologii (direktor - deystvitel'nyy chlen AMN SSSR prof. V.V. Parin). AMN,
SSSR, Moskva.

*

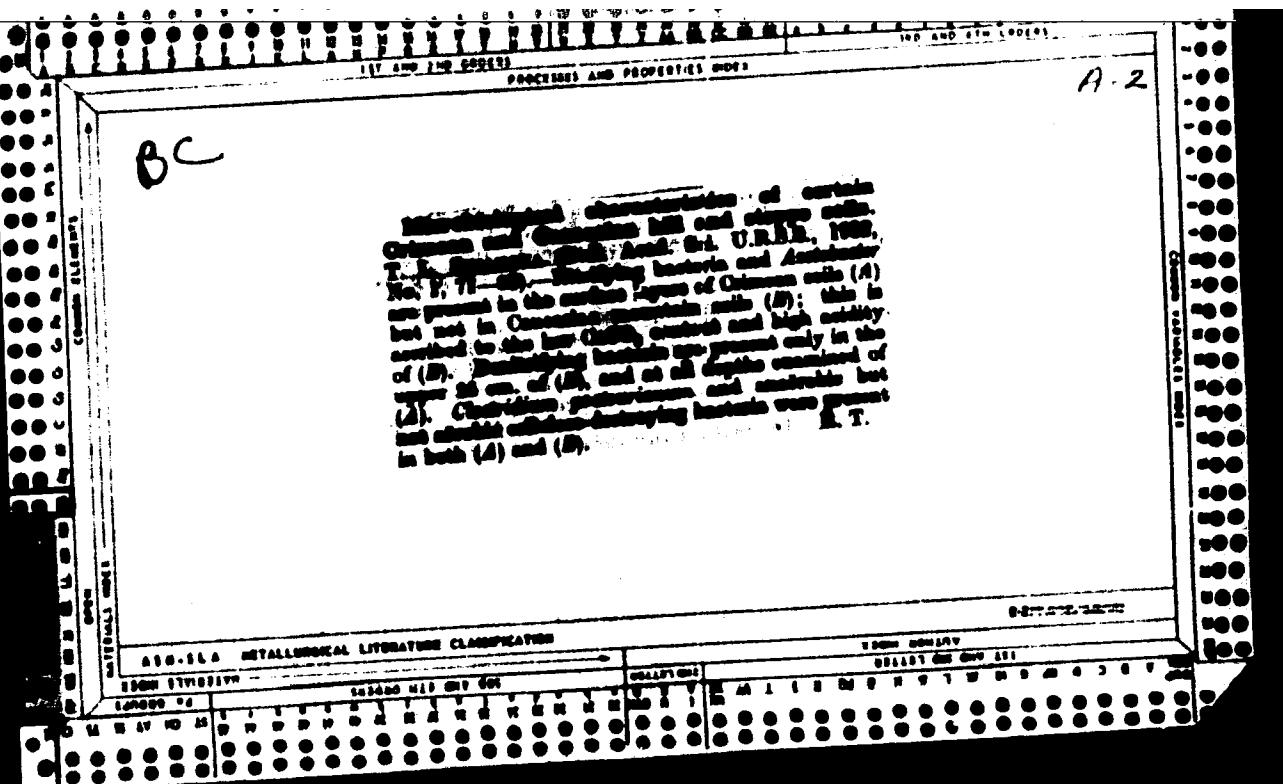
SIMAKOVA, R.A., mladshiy nauchnyy sotrudnik

Ascorbic acid content in the cells of rheumatic granulomas.
Trudy Leng. MM 22:52-56 '63 (MIRA 1882)

POPOVA, G.N., kand. med. nauk; SIMAKOVA, R.A.

Problem of the existence of specific rheumatic changes
in the palatine tonsils. Vest. oto-rin. 25 no.2:36-44
(Mr-Ap '63. (MIRA 17:1)

1. Iz kafedry bolezney ukha, gorla i nosa (dir. - deyst-
vitel'nyy chlen AMN SSSR prof. B.S. Preobrazhenskiy) II
Moskovskogo meditsinskogo instituta imeni N.I. Pirogova i
laboratori obshchey patologicheskoy anatomii (zav. -
chlen-korrespondent AMN SSSR prof. A.I. Strukov) Instituta
fiziologii.



Bc

A 4

Information for the possible transportation of
radioactive materials. (See also "Radioactive Materials in
U.S.A.", 1952, by the same author.) Evaluation of a new
method of separating plutonium from uranium is described.
The physical properties of plutonium, its chemical properties,
and properties of some heavier elements of the actinide series
are given. No mention is made of H_2 or fission.

100-114 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550620007-5"

SELENOVA, T. L.

"Microflora Calling forth Decomposition of Organic Matter in Methan Tanks,"
Mikrobiol., 9, Nos. 9-10, 1940. Mbr., Hydro-Biology Lab., All-Union Sci. Res. Inst.
Water Supply, Canalization, Hydrotechnical Constr., & Engineering, Leningrad, -1940-.

A specific microflora splits the proteins contained in the sewage
deposits of a meat packing plant, down to CH_4 and CO_2 . A nonspecific microflora
breaks the proteins down to amino acids. Fats and cellulose are fermented by
bacteria requiring for culturing a medium contg. org. N. Some of the bacteria
were isolated, and were able to split fats during 1.5 yrs.

SIMAKOVA, T.L.

Biology of *Hemophilus pertussis*. *Zhur.mikrobiol.epid.i immun.* no.3:
8-12 Mr '54. (MLRA 7:4)

1. Iz otdela mikrobiologii (zaveduyushchiy - professor V.I.Ioffe)
Instituta eksperimental'noy meditsiny Akademii meditsinskikh nauk
(*Hemophilus pertussis*)
SSSR.

SIMAKOVA, T.L.; SOFRONOV, B.N.

Growth of freshly isolated cultures of *Hemophilus pertussis* on casein hydrolysate medium with decreased blood content. *Zhur.mikrobiol.epid.i immun.* no.3:15-19 Mr '54. (MLRA 7:4)

1. Iz otdela mikrobiologii (zavednyushchiy - professor V.I.Ioffe)
Instituta eksperimental'noy meditsiny.
(*Hemophilus pertussis*) (Bacteriology--Cultures and culture media)
(Casein)

15-57-1-857

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,
p 135 (USSR)

AUTHOR: Simakova, T. L.

TITLE: Report Delivered by K. B. Abashirov and S. I.
Kuznetsov (Po povodu doklada Abashirova, K. B.
i Kuznetsova, S. I.)

PERIODICAL: V sb: Metody uvelicheniya nefteotdachi plastov,
Moscow, Gostoptekhizdat, 1955, p 202

ABSTRACT: Bibliographic entry

Card 1/1

SIMAKOVA, T.L.

Bacterial factor in the variation of petroleums and conversion of
the initial organic substance. Avtoref. nauch. trud. VNIGRI no.17:
45 '56. (Anaerobic bacteria) (Petroleum analysis) (MIRA 11:6)

SIMAKOVA, T.L.; LOMOVA, M.A.

Studying the microflora of oil fields in Second Baku. Trudy
VNIGRI no.117:213-221 '58.
(Second Baku--Petroleum--Bacteriology)

SIMAKOVA, T.L.

3(5); 11(4)

p 5

PHASE I BOOK EXPLOITATION

SOV/1234

Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut
Voprosy obrazovaniya nefti; sbornik statey (Problems on the Origin of Petroleum;
Collection of Articles) Leningrad, Gostoptekhizdat, 1958. 389 p. (Series:
Its: Trudy, vyp. 128) 2,000 copies printed.

Ed.: Vassoyevich, N.B., Professor; Tech, Ed.: Gennad'yeva, I.M.; Executive Ed.:
Barkovskiy, I.V.

PURPOSE: This book is intended for geologists, geophysicists, and petroleum
technologists, as well as for students at geological and petroleum-engineering
institutes.

COVERAGE: This book, containing four articles written by 11 specialists, reports
on the results of studies made on the origin of oil deposits in the Northeastern
Caucasus. The program was organized in 1950-55 by the VNIGRI (All Union Petroleum
Scientific Research Institute for Geological Survey.) Some of the material pre-
sented in the book is of a preliminary nature as the studies are still continuing.
Particular attention is devoted to the problem of incipient oil concentration
(micro-oil) and to the migration and transformation of bituminous substances into
drops and liquid phases (macro-oil). The authors outline two periods in the

Card 1/6

SOV/1234

Problems on the Origin (Cont.)

formation of oil in terrigenous sediments: 1) the appearance of dispersed micro-globules in parent clays, and 2) the migration of the globules from their source-beds to reservoir-beds and thence their further migration and accumulation in oil traps as liquid drops (macro-oil). The first article is devoted almost entirely to the formation of micro-oil. The second attempts a genetic classification of the sedimentary organic matter. The third defines the content of organic matter in various types of rocks, and describes the conditions under which it undergoes change. The fourth article describes bituminous substances and bitumens and analyzes their components. In addition to a review of the chemical changes in oil, there is a discussion of the problems of petroleum microbiology. The book contains 67 figures and 180 tables. There are 570 references of which 480 are Soviet.

TABLE OF CONTENTS:

3

Editors Preface

Vassoyevich, N.B. Oil Formation in Terrigenous Sediments,
Exemplified by the Chokrak-Karagan Beds of the Terek Frontal Downwarp 9
Foreword 9

Card 2/6

SOV/1234

Problems on the Origin (Cont.)

Primary [least modified] type of oil	12
Oil changes under the influence of hypergenic [surficial] agents	15
Oil changes under the influence of catagenic [physcial] agents	36
General pattern of oil changes	39
Initial type of oil in terrigenous sediments	44
Micro-oil in sediments	51
On the syngenetic nature of the oil-bearing deposits of the Chokrak-Karagan group	53
Organic matter in the sediments of the Chokrak-Karagan group	56
The organic carbon content in sediments	58
Content of bituminous matter in sediments	70
Degree of bitumen content in sedimentary organic matter	91
Detailed characteristics of bituminous components in organic matter	108
Elementary composition of bitumoids (bituminous substances)	108
Ratio of chloroform and residual alcohol-benzol extracts	109
Group components of bitumoids	112
Hydrocarbon content of bitumoids and their composition	116
Balance of organic matter in sediments of the Chokrak-Karagan group	121

Card 3/6

105

...vuskiy, V.A., Indenbom, F.B., Chernysheva, A.S., and Sennikova, V.N.
 Development of a Genetic Classification of Disseminated Organic

Introduction	221
Basic principles in establishing genetic classification of disseminated organic matter	226
Research on organic matter in sediments in its natural disseminated state	263
Results of a study of the bituminous components of disseminated organic materials	284
Conclusions	311
Bibliography	312

Card 4/6

Sov/1234

Problems on the Origin (Cont.)

Simakova, T.L., Gorskaya, A.I., Kolesnik, Z.A., Bolotskaya, O.P., Shmonova, N.I., and Strigaleva, N.V. The Nature of Oil Changes in Anaerobic Conditions Under the Influence of Biogenic Factors	315
Introduction	315
Experimental part	324
Study of the asphaltic and tarry components of oil	324
Study of the group hydrocarbon composition of the oil part of petroleum	332
Paraffin changes under the influence of anaerobic bacteria activity	337
Composition of water-soluble organic matter, formed in the process of oil oxidation by anaerobic micro-flora	340
Study of microbiocoenosis [ecological micro-groups], causing changes in oil and its components under anaerobic conditions	344
Summary	344
Conclusions	359
Bibliography	360
Vassoyevich, N.B. Criticism of the Organic Theory of Oil Formation	363

Card 5/6

36537
S/081/62/000/006/067/117
B149/B108

11.0130

AUTHORS:

Simakova, T. L., Strigaleva, N. V., Kolesnik, Z. A., Voronova, I. K., Gerasyuto, Z. S., Shmonova, N. I.

TITLE:

The role of bacteria in the transformation of hydrocarbons and asphalto-bituminous components of paraffin-base petroleum under anaerobic conditions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 527, abstract 6M130 (Tr. Vses. neft. n.-i. geologo-razved. in-ta, no. 174, 1961, 77 - 97)

TEXT: The results of experiments with three different communities of bacteria taken from the water below the petroleum layer in the wells of Tashkal, the Staro-Groznenskiy oil field and the Emba region are described. It is shown that under the biological action of bacteria certain changes occur in the structure of methane hydrocarbons separated from the fraction 250 - 300°C of Tashkal petroleum by forming complexes with urea. The methane hydrocarbons in the analogous fractions of Makhachkala petroleum were not affected by bacteria. The structural composition of aromatic

Card 1/2

SIMAKOVA, T.L.; KOLESNIK, Z.A.; STRIGALEVA, N.V.; VORONOVA, I.K.;
SHMONOVA, N.I.; GERASYUTO, Z.S.; ANDREYEVA, L.G.

Bacteriological change of petroleums and their components
under anaerobic conditions. Trudy Inst.mikrobiol. no.9:81-85
(MIRA 15:5)
'61.

1.. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy
Institut, Leningrad.
(Petroleum--Microbiology)

SIMAKOVA, Tat'yana Leonidowna; KOLESNIK, Zosya Antonovna; SEGAL', Z.G.,
vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Bacteria of the formation waters, petroleums, and rocks of oil fields
of the U.S.S.R.] Bakterii plastovykh vod, neftei i porod neftianykh
mestorozhdenii SSSR. Leningrad, Gostoptekhizdat, 1962. 87 p. (Leningrad).
Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi
institut. Trudy, no.199) (MIRA 16:3)
(Oil fields--Microbiology)

BERNSHTEYN, I.Z.; SIMAKOVA, V.S. (Rostov-na-Donu)

Case of acute asthma in bronchial sarcoma. Klin.med. 38 no.10:
117-118 0 '60. (MIRA 13:11)

1. Iz kafedry gospital'noy terapii (zav. - prof. N.M. Ivanov)
Rostovskogo meditsinskogo instituta (dir. - prof. P.P. Kovalenko)
i 2-go terapeuticheskogo otdeleniya 1-y Gorodskoy bol'nitsy
(glavny vrach A.V. Goreshnyak).
(BRONCHI--TUMORS) (ASTHMA)

1. SIMAKOVA, YE. A.
2. USSR (600)
4. Stock and Stockbreeding-Study and Teaching
7. Zootechnical training on the "Politotdelets" Collective Farm.
Sots. zhiv. 14 No. 11, 1952

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953. Unclassified.

KOKHAN, M.A.; SIMAKOVA, Ye.T.

Reduced loss of sugar at the Khodorov Sugar Refinery. Sakh.prom. 29
no.1:7-8 '55. (MIRA 8:4)

1. Khodorovskaya gruppovaya laboratoriya.
(Khodorov--Sugar industry)

KOKHAN, M.A.; SIMAKOVA, Ye.T.

Causes of increased yield of feed molasses in the Chernovtsy
Sugar Factory. Sakh.prom. 33 no.9:21-25 S '59.
(MIRA 13:1)

1. Khodorovskaya gruppovaya laboratoriya.
(Chernovtsy--Sugar manufacture)

SIMANOVSKIY, A.L.; MASHLYATIN, M.N.

Improving the preparation of freight cars for loading. Zhel.dor.transp.
(MIRA 18:1)
46 no.11:76-77 N '64.

1. Glavnyy inzh. sluzhby vagonnogo khozyaystva Kuybyshevskoy dorogi
(for Simanovskiy). 2. Zamestitel' nachal'nika sluzhby vagonnogo
khozyaystva Kuybyshevskoy dorogi (for Mashlyatin).

ch

Steel for blades of gas turbines. A. P. Smakovsky. Sudostroenie 10, 80-90(1940).—Study was made of creep characteristics of steel WF-100 of the compn. C 0.47, Si 0.36, Mn 0.49, Cr 13.31, Ni 13.80, Mo 0.58, W 2.50, P 0.04% and S 0.018%. The steel is used for duty at 600° and higher. Specimens 200 mm. long and 10 mm. diam. were tested for creep at 600, 600 and 700°. Duration of tests was 150 hrs. After tests the specimens were heated up to 700° and subjected to mech. tests. As a result of creep the mech. characteristics did not undergo any significant changes when heated at 700°. The steel has high mech. properties and high creep limits at 600-700°. At 700° there was a noticeable drop in elongation and contraction. B. Z. Kamich

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

SIMAKOVSKIY, A. P.

"On the Phosphating of Zinc," Dok. AN, 46, No. 6, 1945. Mbr., Central Sci. Res. Inst.
No. 45, -1945-.

SIMAKOVSKIY, A.-P.

✓ Long-time strength of copper and some copper alloys.
A. P. Simakovskiy. Metalloved. i Obrobka Metallov 1953.
No. 3, 32-8.—The alloys tested were: drawn M3 Cu
(99.86%), rolled LS 50-1 brass (40.25 Zn, 1.42 Mn), rolled
LMts 58-2 brass (40.15 Zn, 1.54 Mn), cast LK 8-3L brass
(17.37 Zn, 2.82 Sn), and cast OTsSN 3-7-5-1 bronze (3.68
Pb, 7.35 Zn, 3.39 Sn, 0.63 Ni), for which complete analyses
and mech. properties were tabulated. Rupture tests up to
4000 hrs. were run at temps. from 20 to 350° and the results
were plotted as log stress *vs.* log time. The Cu was tested
both in the annealed condition and after 20% cold working.
The latter specimens were slightly stronger but suffered a
greater loss in ductility during long times at high temps.
Aging at high temps. without load did not produce a loss in
ductility of cold-worked copper. LK 80-3 and LMts 58-2
did not lose their plasticity during rupture testing at 200-
250°. Short-time mech. properties up to 350° were detd.
for the 4 alloys and for Cu in the annealed condition and
with 20% cold-working. The 1000- and 10,000-hr. rupture
strengths at 300° for the 4 alloys were: LS59-1, 2.1, 1.1;
LMts 58-2, 3.1, 1.9; LK 80-3L, 10.0, 6.3; OTsSN 3-7-5-1,
8.5, 5.0 kg./sq. mm. The rupture strengths at 150° for the
Cu in 3 different conditions were: annealed, 4.5, 2.0;
20% cold worked, 6.0, 3.5; 35% cold worked, 7.5, 3.6 kg./
sq. mm., resp. A. Guy

SIMAKOVSKIY, A.P., inzhener; KALINOVSKIY, N.N., kandidat tekhnicheskikh nauk.

Foreign achievements in the productions of heat resistant steels
and problems involved in the use of these steels for ship mechanisms.
Sudostreemie '22 no.1:29-35 Ja '56. (MIRA 9:?)
(Steel alleys--Testing) (Marine engineering)

SOV-129-58-6-10/17

AUTHOR: Simakovskiy, A. P.

TITLE: Heat Resistant Properties of Copper-Chromium and Copper-Nickel Alloys (Zharoprochnyye svoystva splava medi s khromom i medi s nikellem)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 6, pp 41-47 (USSR)

ABSTRACT: The results are described of investigations of the mechanical properties, the high temperature strength and the corrosion stability of the alloy copper-chromium containing about 0.7% Cr. The investigated chromium-copper was in the form of rolled sheet, containing 99.1% Cu; 0.11% Fe; 0.73% Cr; 0.02% Zn, the mechanical properties of which, after various heat treatments, are summarised in Table 1, p.42. The results of long duration strength tests are given in Table 2 and graphed in Fig.3. The extrapolated values of the long duration strength for 3000, 5000 and 10 000 hours are entered in Table 3. The copper M3S, investigated under equal conditions, had an ultimate strength 3 times lower than that of chromium-copper (Table 3, denominator). Figs.4 to 6 show the primary creep curves of the studied chromium-copper at 280, 320 and 350°C. On the basis of the obtained results, it is concluded that in

Card 1/3

SOV-129-58-6-10/17

Heat Resistant Properties of Copper-Chromium and Copper-Nickel Alloys

the annealed state chromium-copper with 0.75% Cr possesses the strength and ductility of copper, and has good machining and shaping properties. After hardening and high temperature tempering chromium-copper assumes properties similar to those of steel, namely, a strength of 40-42 kg/mm², a yield point of 30-35 kg/mm² and a relative elongation of 16-18%. The initial properties do not change after long duration annealing at 280-320°C. In the latter part of the paper the results are described of experiments on copper-nickel alloys containing about 5 and 10% nickel respectively (chemical analyses are given in Table 5, p.45). It was found that the alloy containing about 10% nickel has no advantage compared to that containing about 5 to 6% nickel; the corrosion losses were about equal, i.e., 0.003 - 0.008 g/m² hour in saturated steam and 0.2170 - 0.2450 g/m² hour

Card 2/3

SOV-129-58-6-10/17

Heat Resistant Properties of Copper-Chromium and Copper-Nickel Alloys.
in superheated steam. On the basis of the results the
author recommends extensive use of the alloy MN5. There
are 6 tables, 12 figures and 4 references, of which 3 are
English and 1 Soviet.

1. Copper alloys - Mechanical properties 2. Copper alloys - Test
methods

Card 3/3

SOV/129-59-2-9/16

AUTHOR: Simakovskiy, A.P., EngineerTITLE: Thermo-mechanical Treatment of the Steels 15M and
12 MKh (Termomekhanicheskaya obrabotka stalei 15M
i 12 MKh)PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov,
1959, Nr 2, pp 40 - 44 (USSR)ABSTRACT: In addition to 0.5% molybdenum steel, the steel 12MKh
is being used extensively in the Soviet Union for
pipings and collector vessels of high-pressure steam
equipment. The aim of the work described in this paper
was to verify the properties of the steels 12MKh and 15M
after technological operations such as are carried ^{out} manufacture
in the manufacturing plants and during erection. During
small-diameter tubes are subjected to bending in the cold
state, but during erection, these are bent after local
heating with burners. Large-diameter tubes are bent in the
hot state. According to specifications, assembled
bundles of tubes have to be subjected to normalisation
annealing and tempering.

Card 1/4

SOV/129-59-2-9/16

Thermc-mechanical Treatment of the Steels 15M and 12MKh

The compositions (in %) of the investigated steels were as follows:

	C	Si	Mn	Cr	Ni	Mo	S	P
12MKh	0.18	0.30	0.61	0.52	0.37	0.48	0.021	0.011
15M tubes	0.14	0.25	0.57	0.27	-	0.42	-	-
15M rods	0.15	0.33	0.49	0.34	-	0.46	-	-

The tests were carried out after various thermc-mechanical heat treatments (enumerated in Table 2) which, to a certain extent, corresponded with the currently used technology during production and erection. The results of short-duration tensile tests are graphed in Figure 1. The results of long-duration tests (up to 5 000 hours) are entered in Tables 3 and 4 and, in Figure 2, the logarithm of the stress versus the logarithm of the time until failure is graphed. Data obtained by extrapolating to 10 000, 30 000 and 100 000 hours of the measured results are entered in Table 5.

Card2/4

SOV/129-59-2-9/16

Thermo-mechanical Treatment of the Steels 15M and 12MKh

The results of creep tests obtained by extrapolation for 480 °C are entered in Table 6. In Figure 3, the primary creep curves for a test temperature of 480 °C are graphed for the steel 15M after work-hardening by 15% and tempering at 680 °C. The following conclusions are arrived at: the steel 15M has the poorest combination of mechanical properties after work-hardening and subsequent heating at 250 °C for 90 min. The technology of fabricating the tubes from the steels 12MKh and 15M applied in works does not produce an inadmissible lowering of the strength values. It was found that after fabricating under shop and erection conditions, the investigated steels have very high values of sustained strength at 480 °C and the loss in plasticity in long-duration failure tests is relatively small. The author recommends applying a final thermal operation, i.e. either tempering or normalisation annealing followed by tempering. Such heat treatment will bring about stabilisation of the structural

Card 3/4

SOV/129-59-2-9/16

Thermo-mechanical Treatment of the Steels 15M and 12MKh

components and of the properties and also a higher
ductility in long-duration strength tests.
There are 3 figures and 6 tables.

Card 4/4

KANFOR, Solomon Semenovich; SIMAKOVSKIY, A.P., nauchnyy red.; KAZAROV,
Yu.S., red.; KONTOROVICH, A.I., tekhn.red.

[Steel plate for ship hulls] Korpusnaya stal'. Leningrad, Gos.
sciuznoe izd-vo sudastrukt. promyshl., 1960. 374 p.
(MIRA 13:12)
(Plates, Iron and steel) (Hulls (Naval architecture))

S/129/02/000/007/007/008
EC73/3535

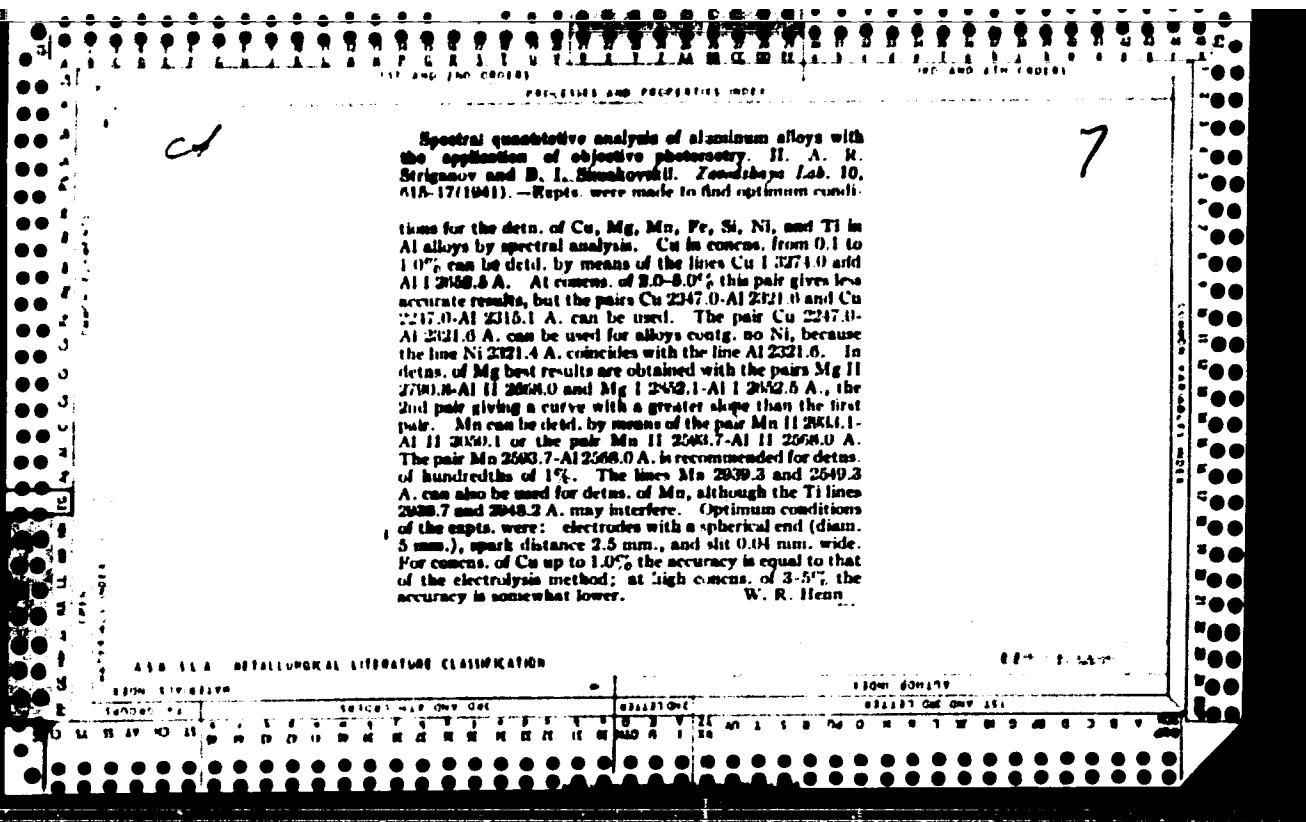
AUTHOR: Simakovskiy, A.P., Engineer
TITLE: Creep strength of the steel EI415 (EI415) under non-steady state test conditions
PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.7, 1982, 50-52
TEXT: This steel has a satisfactory high temperature strength under steady-state conditions and it is extensively used for manufacturing forged rotors. EI415 steel (with the composition: 0.19% C, 0.24% Si, 0.40% Mn, 2.56% Cr, 0.45% W, 0.32% V, 0.12% Ni and 0.42% Mo) was tested under the following conditions:
1. Step-wise increase of the load from the creep-strength value 3% to 1.1%;
2. Step-wise decrease of the load from 1.1% to 3%;
3. Whilst maintaining a constant load of 26 kg/mm² the temperature was increased from 530 to 550°C for 1000 hours;
4. Whilst maintaining a constant load of 26 kg/mm² the temperature was reduced from 550 to 530°C for 1000 hours;
5. Simultaneous step-wise change of the load and temperature;
Card 1/2

Creep strength of the steel ...

8/129/82/000/007/007/008
SC73/3555

c. Testing the specimens to destruction at 550°C during multiple 3 hour cycles of loading (1 hour) and load relief (2 hours). Conclusions: The service life for step-wise loading is always lower than for a constant load. Increase or decrease of the temperature by 20°C for 1000 hours has no adverse influence on the time to failure. Tests according to (6) have shown that in the case of periodic load relief the time to failure is considerably longer than in the case of continuous static loading. Cyclic changes of the loading with stresses not exceeding the creep strength do not shorten the time to failure. Over-loading after maintaining a constant high load for 1000 hours shortens the time to failure. Under normal conditions of operation, the maximum load should not exceed the specified creep strength for the given service life. There are 3 figures and 4 tables.

Card 2/2



24486
S/128/60/000/010/014/016/XX
A033/A133

11500A

AUTHORS: Dobatkin, V. I., and Simakovskiy, B. I.

TITLE: Investigating the crystallization of aluminum with the aid of radioactive isotopes during continuous casting

PERIODICAL: Liteynoye proizvodstvo, no. 10, 1960, 34 - 36

TEXT: The authors point out that the motion of the liquid melt during the crystallization process affects to a considerable degree the formation of the casting structure. It was attempted to prove the nature of these motions on the basis of the theory of thermodynamics [Ref. 1: G. P. Ivantsov. Teploobmen mezhdu slitkom i izlozhnitsey (Heat exchange between ingot and ingot mold), Metallurgizdat, 1951], but experimental investigations have never been carried out hitherto. In the tests described the aluminum master alloy contained 1% of the radioactive Ca⁴⁵ isotope, i.e. approximately 0.7 millicurie per 1kg of melt in the pipe hole. The ingots were radiographed with the aid of an XX grade X-ray film exposed some 20 - 25 days. The ingots 280 mm in diameter of commercial aluminum (0.10% Fe; 0.12% Si; 0.006% Cu) were cast in a crystallizer 180 mm high. Asbestos-

Card 1/3

244-6

S/128/60/000/010/014/016/XX
A033/A133

Investigating the crystallization of...

lined casting funnels were used for the casting. The aluminum tapping temperature was 700°C, the hole 210 - 220 mm deep. The authors describe the obtained radiographs of transverse and longitudinal templets cut from the ingot, and point out that, with the aid of radioactive isotopes, in contrast to all other methods, not only the shape of the holes but also the peculiarities concerning their geometry can be disclosed. It was possible to conclude on the cyclic motion of the ingot in the crystallizer and on the formation of a forced allowance between ingot and crystallizer. It is emphasized that, in order to prevent ruptures, beading and cracks, it is necessary to reduce the crystallizer height. It is also recommended to avoid any horizontal displacement of the ingot during the casting process, which would cause the formation of a forced allowance. Some structural non-homogeneities of the ingot can be fully exposed on the macro-radiogram, including isolated dendrites originating on the open ingot surface. The authors present a number of radiograms showing the various crystallization zones of alternating intensity, the formation of tapered and non-tapered peripheral casting skins, isolated dendrite inclusions, etc., which prove the applicability of the method of radiography to investigate the mechanics

Card 2/3

Investigation the crystallization of...

2M106
S/120/60/000/010/014/016/XX
A033/A133

of hot crack formation. There are 9 figures and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: G. L. Putman. "J. Inst. of Metals", no. 8 (82), 1953 - 54.

X

Card 3/3

...VSKIY, M.A. ...ind. ekonom. nauk

Taking into account the idle running of cars in calculating
and planning the distribution of industries. Vest. TSNII MPS
(MIRA 18:6)
24 no.1-2000 '65.

PAKHMAN, T.A., kand. ekonom. nauk; SIMANOVSKIY, M.A., kand. ekonom. nauk

Planning and accounting of transportation costs in the national
economy. Zhel. dor. transp. 47 no.5:68-72 My '65.
(MIRA 18:6)

HUPKA, J.; SIMALJAK, J.

Effect of ultrasonics on Escherichia coli cultures. Bratislavské listy
31 no.3-4:247-251 1951. (CIML 21:1)

1. Of the Institute of Medical Physics of Slovak University, Bratislava.

KRIZAN, Z.; HOSTYN, E.; JABLONSKY, I.; SIMALJAK, J.; SCHNORRER, M.

Experimental bronchography with aqueous disperse solution of
barium sulfate. Bratisl. lek. listy 35 2 no.2:80-83 31 July 55.

1. Z Ustavu pre lekarsku fyziku LFUK v Bratislave, prednosta doc.
MUDr. a RNDr. Z. Krizan, z Ustavu pre uzitu anatomiu LFUK v
Bratislave, prednosta doc. MUDr. M. Kratochvil a z Vyskumeho
ustavu onkologickeho v Bratislave, riaditel clen korespondent
SAV V. Thurzo.

(BAIUM SULFATE
aqueous disperse solution in exper. bronchography
in dogs.)

(BRONCHOSCOPY
exper. bronchography with aqueous disperse solution
of barium sulfate in dogs.)

SIMALJAK, J.

8.1-357

✓ Šimaljak, J. and Milerová, A. *Niekto porovania počas zatmenia slnka v Bratislave* [DNA 30. júna 1954. [A few observations during the solar eclipse of June 30, 1954 in Bratislava.] Meteorologické Zprávy, Prague, 7(5):132-134, 1954. 4 figs., photo. Russian and German summaries p. 132. DLC - Values of total light intensity, yellow, red and ultraviolet light intensity, temperature, cosmic radiation and radio reception during the solar eclipse of June 30, 1954 are graphically presented. All values show a marked decrease during the eclipse, except tropospheric radio reception which definitely improved, possibly as a result of a decrease in ionization intensity. Subject Headings. 1. Solar eclipse observations 2. Solar eclipse, June 1954 3. Bratislava, Czechoslovakia. - G.T.

551.590.24

3:

EE

mjt

CZECHOSLOVAKIA/Optics - Photometry. Colorimetry

K-12

Abs Jour : Ref Zhur - Fizika, No 12, 1958, No 28915

Author : Simaljak J., Jablonsky I.

Inst : Not Given

Title : Estimate of Suitability of ordinary Light Sources from the Point of View of Spectral Compositions.

Orig Pub : Ceskosl. ofthalmol., 1958, 14, No 2, 97-101

Abstract : The article is devoted to an investigation and estimate of the use of the types of illumination usually employed in Czechoslovakia. Principal attention is paid to the spectral composition of light from illumination sources. The results obtained are compared with the spectrum of natural scattered daylight. The closest to the spectrum of natural daylight is the spectrum of mixed light from a tungsten-filament lamp and a mercury vapor lamp. Second place is occupied by the spectrum of a fluorescent lamp.

Card : 1/1

SIMALJAK, J.; JABLONSKY, I.

The effect of fluctuation of the light-flow of common light sources on
the quality of illumination. Cesk. ofth. 14 no.2:102-107 Apr 58.

l. Ustav pre lekarsk u fyziku Komenskeho univerzity, predmosta ustavu
prof. Z. Krizan.

(ILLUMINATION,

quality, eff. of fluctuation of light-flow from various light
sources (Cx))

SIMILJAK, J.; MILLEROVA, A.; JABLONSKY, I.; IASKOVA, O.; BUKACOVÁ, H.; BUZAS, M.

Effect of several common light sources on color perception. Cesk. ofth.
14 no.6:420-424 Dec 58..

1. Ustav pre lekarsku fyziku UK Bratislava, prednosta prof. MUDr. RNDr.
Z. Krizan.

(COLOR VISION
eff. of various light sources on color perception (Cz))
(ILLUMINATION
same)

SIMALJAKOVA, Jarmila

Mucin hydrogel as a new base of ophthalmic ointments. Cesk. farm.
4 no. 1; 11-14 Jan 55

1. Z Ustavu galenickej farmacie Slovenskej univerzity v Bratislave.

(EYE,
ophthalmic ointments, mucin hydrogel base)

(MUCIN,
hydrogel base for ophthalmic ointments)

(OINTMENTS,
ophthalmic, mucin hydrogel base)

CZECH

The use of the linseed mucin in pharmacy and medicine.
Jarmila Šimaljaková (Univ. Bratislava, Czech.). Farmacia
24, 45-69 (1966).—Mucin was obtained from the seed of
Linum usitatissimum by maceration, digestion, H₂O extn.,
purification by EtOH pptn. (1:1), and drying. Mucin
can be used to replace acacia gum for the stabilization of
emulsions. The concn. used to stabilize suspensions de-
pends on the quality of the solid. The best concn. is 0.5-
1.5%. Mucin can be also used, in a concn. of 2.5%, as a
good base for eye ointments. K. Macek

✓ **M** Apparatus for the determination of the liberation of the active compounds in eye ointments. Jarmila Šimajáková (Farm. Ústav Univ., Bratislava, Czech.). *Brundis 26*, 162-8(1955).—An app. for the detn. of the liberation of drugs from ointment bases (I) into tears and from tears by diffusion into the interior parts of eye is described. The app. consists of 3 compartments; one of them is filled w/ I contg. the tested compd. or 1% methylene blue soln. This vessel is connected by means of a ground glass joint with the middle compartment contg. a Ringer soln. isotonic with tears, and this center flask is connected with another vessel equally filled with Ringer soln. The latter vessels are sep'd. by a semipermeable cellophane membrane substituting for the cornea. The whole app. is kept at 30.4° for 1 hr. from the beginning of test. After this time the soln. is run out of the 2 vessels separately and the content of active compds. is detd. colorimetrically. K. Macek

SIMONOVÁ, J. /reviewer/

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: /not given/

Source: Bratislava, Farmaceuticky Obzor, Vol XXX, No 5, 1961, pp 156-158.

Data: "Preparation of Sterilized Medicines in Pharmacies Priprava steril-
nich leku v lekarnach", Prague, State Medical Publishing House
(Statne zdravotnické nakladatelství), 1960. 278 pages.

SINKLOVSKA, J.

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation: [not given]

Source: Bratislava, Farmaceuticky Obzor, Vol XXX, No 6, 1961, pp 190-191.

Data: "Symposium on the Preparation of Granulated Products, Pills, and Dragée."

600 981643

ŠIMALJAKOVÁ, J.

Czechoslovakia

Bratislava, Farmaceutický Obzor, No 10, 1962, p 479-
480

"History of the Faculty of the Chemical and Pharmaceutical
Industrial Service."

CCR

HALAC, J., SIVALJAKOVA, J.

no academic degrees indicated

State textile research Institute (Statny vyskurny ustav), Liberec, laboratory at
Bratislava, and department of pharmacology (katedra farmacie) of SUDL, Bratislava

Bratislava, Farmaceuticky Obzor, No 11-12, 1962, pp 481- 486

"Characteristics of the Flax Mucine"

SIMALJAKOVA, J.; KALAC, J.

Stabilization of aqueous suspensions of barium sulfate. Cesk.
farm. 13 no. 2:5'-64 F'64

1. Katedra farmacie SUDL, Bratislava a Statni vyskumny ustav
textilny, Bratislava.

*

SIMAIN, Gy

PAPIR-ES NYOMDATECHNIKA — PAPER AND PRINTING
Vol. 2 — 1950
No. 9, Sept.

3.

for **Sumit** 6.8.3.1
Consolidation of management, organization and control. Possibilities for work guidance by the *dispatcher* system. pp. 21-23

4.0.1.6. METALEGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550620007-5"

SIMAN, Gy

Papir es Nyomdatechnika
Paper and Printing
ol. 3 1951
n. 1 Jan.

Gy. Siman
For a better organization in U.S.

ATA-ATA METALLURGICAL LITERATURE CLASSIFICATION

HUNGARY/Chemical Technology. Chemical Products and H
Their Uses. Part IV. Cellulose and Its
Derivatives. Paper.

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 52345

Author : Siman, Gyula

Inst :

Title : Trends in the World's Paper Industry.

Orig Pub : Papiripar, 1957, 1, No 9-10, 161-169

Abstract : Statistics on the per capita consumption
of all grades of paper in different count-
ries for 1955 and on the world's paper and
cellulose production by countries and con-
tinents in 1938 and 1955, were presented.
Prospects for the development of the paper
industry in the next 20-25 years, and par-

Card : 1/2

JANEČ, M.; SIMAČ, J.

Evaluation of 20 years' experience with the treatment of hydrocephalus in infants. Rozh.chir. 43 no.12:864-870 D'63.

1. Katedra chirurgie detskeho veku Lekarskej fakulty UK v Bratislave, veduci prof.dr. M.Kratochvíl, DrSc.

*

KALDÉRÁB, János TÓTH, László MÁK, László

Contribution to the study of the bilberry trout in Lake Balaton. (Hungarian)

1. Káldérás, János, Tóth László, Mák László, Pratikus

Siman S.

Lactose. J. Siman. (Výzk. ústav pro mléko a vejce,
Prague, Czechoslovakia) *Pol. Potravin* 3, 283-7(1952).
Review on chemistry, technology, and use. L. J. U.

Siman, J.

Siman, J. Vaclav Knez's Vyroba syru (Cheese Manufacture); a book review. p. 52.

Vol. 8, no. 1, 1957
PRUMYSL POTRAVIN
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, No. 5, May 1957

CZECHOSLOVAKIA / Chemical Technology. Chemical Products H
and Their Application. Food Industry.

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 44119.

Author : Siman J.

Inst : Not given.

Title : Employment of Thermoplastics in the Packing of
Food Products.

Orig Pub: Vyziva lidu, 1958, 13, No 11, 169.

Abstract: No abstract.

Card 1/1

SIMAN, J.

Food packed in tubes. p. 98

PRYMSL, POTRAVIN. Praha, Czechoslovakia, Vol. 10, no. 2, February 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 7, July 1959.
Uncl.

SIMAN, Josef, inz.; SCHMIDL, Milan

Packaging of the soft and cream cheese in the new packaging materials. Prum potravin 13 no.5:237-238 My '62.

1. Vyzkumny ustav mlekarensky, Praha.

SIMAN, Josef, inz.; SCHMIDL, Milan; KUTILEK, Alois; KAVAN, Alois

Use of plastics in packaging Olomouc cheese. Prum potravin 14 no.4:
172-175 Ap '63.

1. Vyzkumny ustav mlekarensky, Praha (for Siman and Schmidl).
2. Severomoravske mlekarny, n.p., Olomouc (for Kulitek and Kavan).

SIMAN, Josef, inz.

Cheese aging under coating of plastics and other materials.
Prum potravin 14 no.11:568-569 N°63.

1. Vyzkumny ustav mlekarensky, Praha.

CERNA, Eva, inz.; SIMAN Josef, inz.

Fast method of determining the dry matter in some dairy
products. Prum potravin 14 no.11:599-601 N°63.

1. Vyzkumny ustav mlekaensky, Praha.

SIMAN, Jindrich, inz.

Reducing the load of buried pipes by a compressible inlet piece.
Vodni hosp 14 no.7 247-248 '64

1. Hydroprojekt, Prague.

ATMAN, Josef, 1910, CHMIDA, Milivoj

Present experiences in the use of plastic coatings for hard cheese ripening. "Rum potravin 15 no.9:434-435 S '64.

1. Institute of Diary Research, Prague.

SIAM, I.

"Taxis for Illegitimate Participants in Enterprises", I. 19. (TOMTOM FILES,
Vol. 7, No. 2, Feb. 1983, Budapest, Hungary)

SC: Identifly List of Es' European Accessions, (HEAL), LC, Vol. 4,
No. 1, Jan. 1971, Incl.

SIMAN, M.

SIMAN, M. A more rational organization in some fields of management and planning.
p. 114

Vol. 6, no. 5, Sept. 1956

BOR-ES CIPOTECHNIKA

TECHNOLOGY

Budapest, Hungary

SO: East European Accession Vol. 6, no. 3, March 1957

SIMAN, Miklos

Some economic problems of the Hungarian textile industry.
Przegl wlokiem 16 no.7/8:426-429 Jl-Ag '62.

L 32944-66 EWT(m)/EWP(t)/ET1 IJP(c) JD
ACC NR: AP6017606 (N)

SOURCE CODE: UR/0364/66/002/002/0200/0204

AUTHOR: Levinskas, A. L.; Simanavichus, A. Yu.

ORG: Vilnius State University imeni V. Kapsukas (Vil'nyusskiy gosudarstvennyy universitet)

TITLE: Electrolytic deposition of aluminum from a hydride electrolyte

SOURCE: Elektrokhimiya, v. 2, no. 2, 1966, 200-204

TOPIC TAGS: electrolytic deposition, aluminum plating, aluminum hydride, metal crystallization

ABSTRACT: The authors study aluminum plating in an aluminum chloride-diethyl ether-lithium hydride electrolyte, with particular regard to work conditions in the bath, the effect of reversed and pulsed current, determination of throwing power and an investigation of electrolytic aluminum deposition using polarization curves. The thickness of the aluminum coating is a linear function of time at a current density of 2 a/dm^2 for periods of electrolysis up to three hours. In studying electrolysis with current reversal, the time of the anode part of the cycle was considerable when compared to the electrocrystallization time. For this reason there was a sharp falloff in the rate of electrolytic deposition for ratios of anode process time to electrocrystallization time ranging from 0.1 to 1.0. The 0.6-0.7 range is optimum in a

29
8
1
6
UDC: 621.357.7

Card 1/2

L 32944-66

ACC NR: AP6017606

constant current density cycle for producing semibright coatings. The rate of electrolytic aluminum deposition is increased considerably by using pulsed current. The average throwing power for a hydride bath based on copper is 19.6% while the throwing power of a bath based on iron is 28.8% on the average. A cylindrical tank 3.5 cm in diameter was used for aluminum plating small steel components with a complex configuration. A new platinum comparison electrode is proposed for taking polarization curves and oscillograms in a non-aqueous solution. Orig. art. has: 7 figures.

SUB CODE: 11/ SUBM DATE: 24Apr65/ ORIG REF: 004/ OTH REF: 018

Card 2/2 *KFB*

SIMANAVICHUS, L. E.

AUTHOR:

Storonkin, A. V., Simanavichus, L. E.

54-4-13/20

TITLE:

Investigation of the Three-Componental Equilibrium in the System Calcium-Chloride - Methanol - Water (Issledovaniye trekhfaznogo ravnovesiya v sisteme khloristyy kal'tsiy - metilovyy spirt - voda)

PERIODICAL:

Vestnik Leningradskogo Universiteta Seriya Fiziki i Khimii, 1957, Vol. 22, Nr 4, pp. 103-119 (USSR)

ABSTRACT:

The study of the solubility, as well as of the partial vapour pressure of the transient components in the above cited system and the connection between the different thermodynamic quantities are the aim of the submitted work. The experiments were carried out according to common methods gravimetrically as well as volumetrically at $25 \pm 0.02^{\circ}\text{C}$ and 15° and 20°C . The results were achieved at limits of error of $\pm 0.15\%$ (per weight) for calciumchloride and water, and of $\pm 0.25\%$ (per weight) for methanol. The experimental results and those derived from the thermodynamic theory for the heterogenous three-componental systems regarding the form of the solubility - isothermal-lines and curves of the total and the partial vapour

Card 1/2

Investigation of the Three-Componental Equilibrium in the
System Calcium-Chloride - Methanol - Water

54-4-13/20

pressure correspond quantitatively and qualitatively. The changes of the chemical potential (and accordingly also of the partial-pressure) of the water and of the methanol along the isothermal lines ($\text{CaCl}_2 \cdot 2\text{CH}_3\text{OH}$; $\text{CaCl}_2 \cdot 4\text{CH}_3\text{OH}$; $\text{CaCl}_2 \cdot 4\text{H}_2\text{O}$; $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$) are stated. Theoretical statements are given for: The change of the total vapour pressure along the solubility isothermal line for 25°C , the process of the open isothermal evaporation of saturated solutions, the course of the curve of the extremum vapour pressure and of the temperature with saturated solutions in the three-phase system, as well as for some correlations of various thermodynamic quantities as regards the four-phase equilibrium in the three-componental system (two salts - two solvents). There are 8 figures, 3 tables, and 14 references, 12 of which are Slavic.

SUBMITTED: May 7, 1957

AVAILABLE: Library of Congress

Card 2/2

SIHANAVICHUS, L. E., Cand Chem Sci -- (diss) "Thermodynamic
study of ^{the} triphase equilibrium - solid phase, solution, vapor -
in the system CaCl₂-CH₃OH-H₂O." Len, 1958. 10 pp with draw-
ings (Len Order of Lenin State Univ im A. A. Zhdanov), 100
copies (KL, 18-58, # 96)

8/762/61/000/000/006/029

AUTHORS: Savitskiy, Ye. M., Livanov, V. A., Nuss, P. A., Burkhanov, K. S.,
Musatov, M. I., Simanchuk, A. D.

TITLE: Alloys of titanium with rare-earth metals.

SOURCE: Titan v promyshlennosti; sbornik statey. Ed. by S. G. Glazunov.
Moscow, 1961, 85-89.

TEXT: The paper reports the results of phase-diagram (PD) determinations and mechanical tests (beginning in 1959) at the Institute of Metallurgy, AS USSR, of Ti alloys with the rare-earth metals (REM) lanthanum (La), cerium (Ce), neodymium (Nd), and Yttrium (Y), all of which serve as stabilizers of the Ti α phase. The alloys are all characterized by a peritectoid-type PD. In the Ti corner of ternary Ti-Al-La and Ti-Al-Ce it was shown that increased Al content reduced the solubility of La and Ce (at 600°C, with 5% Al, Ce solubility < 0.1%). Tests on the effect of REM additions on the high-temperature characteristics (HTC) of Ti alloys were performed on the two-phase α + β alloy BT3-1 (VT3-1) and the BT5-1 (VT5-1) single-phase α -Ti solid solution (SS). The effect of Ce, Mischnmetal (MM), and Ce_2O_3 on VT3-1 were determined with 0.001, 0.01, and 0.1% Ce; 0.2% MM, and 0.01 and 0.1% Ce_2O_3 . The effect of 0.1% Ce alone was determined on VT5-1. Ce and MM were introduced in the form of Al-Ce and Al-MM ligatures. Microadditions (0.001-0.01%) of Ce increased the tensile strength of Ti alloys at 500-600° by 25-30% with-
Card 1/2

Alloys of titanium with rare-earth metals.

S/762/61/000/000/006/029

out impairing its ductility. An addition of 0.2% MM increased the tensile strength of the Ti alloy by as much as did 0.01% Ce, but with an appreciable loss in ductility. Even 0.1% Ce did not lead to the formation of any new phase; no change in room-temperature (RT) characteristics was noted, and the improved HTC cannot be explained theoretically. Microadditions of Ce_2O_3 improve the HT tensile strength of the Ti alloy tested by 20-30%, but with some loss in ductility. Passing reference is made to Grant's tests (USA; no detail given) on the hardening-phase formation of a refractory Ce-oxide segregation from the solid solution. All REM additions improved the stress-rupture HTC of VT3-1: At 500°C and 40 kg/mm², VT3-1 - 20 hrs, with 0.2% MM - 150 hrs, with 0.1% Ce_2O_3 - 125 hrs, with 0.01% Ce_2O_3 - 180 hrs, with 0.001% Ce - 77 hrs. The guaranteed period for this alloy, according to Engineering Specs, is 50 hrs. The work on the effect of Ce on the modulus of elasticity of Ti requires additional work. Addition of 0.1% Ce enhances the HT tensile strength of VT5-1; 0.25% Ce less so and at a loss in ductility. Tests of microadditions (0.001 and 0.01%) of Ce to VT5-1 are recommended. In stress-rupture tests at 500° and 30 kg/mm², rupture of VT5-1 occurred at 130 hrs. Identical tests with VT5-1 with Ce addition produced longer, widely scattered, rupture times up to 300 hrs; the scatter is attributed to nonuniform Ce distribution in the alloy. Additional tests with more uniform Ce distribution are planned to determine an optimal Ce content. There are 4 figures; no identified references. ASSOCIATION: None given.

Card 2/2

MASLOV, Nikolay Nikolayevich; SIMANCHUK, I.B., red.; BORUNOV,
N.I., tekhn. red.

[Problem of the stability and deformation of soils in the
light of foreign materials at the Fourth International
Conference on Soil Mechanics and Foundation Engineering]
Problema ustoichivosti i deformatsii gruntov v svete za-
rubezhnykh materialov IV Mezhdunarodnogo kongressa po me-
khanike gruntov i fundamentostroeniiu. Moskva, Gos. energ.
izd-vo, 1961. 195 p. (MIRA 15:3)
(Soil mechanics) (Foundations)

SIMANCHUK, M.A., agronom.

Experiment in sowing rye for hay. Zemledelie 6 no.6:86 Je '58.
(Rye) (MIRA 11:6)

AL'KHANOV, A.S., inzh.; SIMANCHUK, V.K., inzh. (st. Usyaty Tomskoy dorogi)

Prolong the life of contact wires. Elek. i tepl. tiaga no.1:11-13
'57. (MIRA 12:3)

1.Zamestitel' nauchal'nika uchastka energosnabzheniya. Belovo-Novo-
kuznetsk Tomskoy dorogi (for Al'khanov)
(Electric railroads--Wires and wiring)

SIMANCHUK, V.K.

Improve the warning system signalling the appearance of interfering harmonics. Elek. i tepl. tiaga 4 no.10:18-19 O '60. (MIRA 13:10)

1. Zamestitel' nachal'nika Loxovskogo uchastka erergosnabzheniya Yuzhnay dorogi.

(Electric railroads--Current supply)